Amendments to the Specification

Please replace paragraphs [0011], [0027], and [0029] with the following replacement paragraphs [0011], [0027], and [0029]:

[0011] Claim 1 provides first and foremost an additional gas inlet zone of the gas inlet member for one of the two starting materials, to reduce the horizontal extent of the inlet zone. According to the proposal of Claim 2, to reduce the horizontal extent of the inlet zone, one of the two starting materials is to be introduced into the process chamber not just through one gas inlet zone but through two gas inlet zones. The first starting material, which is introduced through a gas inlet zone neighboring the floor of the process chamber, is preferably also introduced through the additional gas inlet zone. This may be neighboring the ceiling of the process chamber. This has the consequence that altogether three gas inlet zones are provided. The V component or the hydride is introduced into the process chamber through the two outer gas inlet zones neighboring the ceiling and the floor. The III component is introduced into the process chamber through the middle gas inlet zone, optionally provided with a pressure barrier. This component is preferably a metalorganic compound, which is dissolved in a carrier gas, for example nitrogen or hydrogen. It is also possible in the case of the device according to the invention or the method according to the invention for the first starting material to be introduced into the process chamber in a concentration that is 100 to 5000 times higher than the second starting material. The device according to the invention may have a heated floor. The ceiling may either be heated or not heated. Preferably, however, it is a hot-wall reactor with a heated floor and a non-heated ceiling. Furthermore, it is possible for the vertical ~~height~~size of the gas inlet zones neighboring the floor and the ceiling to be less than the vertical ~~height~~size of the middle gas inlet zone. The sum of the two ~~heights~~sizes of the gas inlet zones neighboring the floor and the ceiling may also be less than the ~~height~~size of the middle gas inlet zone. The gas may flow in through the outer gas inlet zones at a higher flow velocity than through the

middle gas inlet zone. The reactor may have a rotationally driven substrate holder, as described by DE 100 43 601 A1. The substrate holder may in the same way have substrate carriers disposed around the center of the substrate holder in the manner of satellites. Altogether, there may be six substrate carriers, which surround the circular inlet zone lying close together in a circular arrangement. The growing zone then has an annular shape. Each individual substrate carrier may carry a total of seven substrates. This achieves a high packing density. In a way similar to in the prior art, the gas inlet member may be water-cooled, so that abrupt heating of the process gas takes place when it flows into the process chamber. The inlet member is designed in such a way that each of the three or more inlet zones can be individually supplied with gas. Corresponding mass flow regulators and valves are provided for this purpose. In particular, the middle gas inlet zone, which is associated with the metalorganic component, may have a pressure barrier. This pressure barrier may consist of a porous material. This avoids back diffusion. The gas inlet member may, in a known manner, have a rotationally symmetrical shape, as described for example in DE 100 64 941 A1. The substrate holder is heated. It is heated by means of radiation and/or heat conduction. The heat for heating the floor may be generated as infrared heat. Electrical resistance heating is also possible.

[0027] It is provided that the vertical ~~heights~~sizes of the gas inlet zones 6 and 8 are each of the same size. The same amounts of gas per unit of time are also preferably intended to flow through these gas inlet zones 6 and 8. The ~~heights~~sizes of the gas inlet zones 6, 8 are less than the ~~height~~size of the middle gas inlet zone 7. In particular, the sum of the ~~heights~~sizes of the gas inlet zones 6 and 8 is less than the ~~height~~size of the middle inlet zone 7.

[0029] The ratios of the ~~heights~~sizes of gas inlet zone 6, gas inlet zone 7 and gas inlet zone 8 in relation to one another is preferably 4:15:4.